

Amendments to the Claims:

1. (previously presented): A component assembly suitable for use in living tissue comprising:
a stainless steel part;
a titanium part; and
a filler material comprising at least one nickel foil layer and at least one titanium foil layer for bonding said stainless steel part to said titanium part.
2. (previously presented): The component assembly of claim 1, wherein said at least one nickel foil layer is adjacent said titanium part.
3. (previously presented): The component assembly of claim 1, wherein:
said filler material has a top and a bottom outer surface; and
said at least one nickel foil layer comprises the top and the bottom outer surfaces of said filler material.
4. (previously presented): The component assembly of claim 1, wherein:
said filler material has a top and a bottom outer surface; and
said at least one titanium foil layer comprises the top and the bottom outer surfaces of said filler material.
5. (previously presented): The component assembly of claim 1, wherein said stainless steel part is selected from the group consisting of 200, 300, and 400 series stainless steel.
6. (previously presented): The component assembly of claim 1, wherein said stainless steel part is comprised of 316L stainless steel.
7. (previously presented): The component assembly of claim 1, wherein said titanium part is selected from the group consisting of titanium and titanium alloys.

8. (previously presented): The component assembly of claim 1, wherein said titanium part is comprised of Ti-6Al-4V.

9. (previously presented): The component assembly of claim 1, wherein said filler material reacts with and forms a bond between said titanium part and said stainless steel part.

10. (previously presented): The component assembly of claim 1 wherein: said filler material has a thickness no greater than about 0.010 inches; and said component assembly being heated to a temperature that is less than the melting point of said titanium part or of said stainless steel part, but that is greater than the melting point of said filler material, thereby forming a bond.

11. (previously presented): The component assembly of claim 1, wherein said at least one nickel foil layer and said at least one titanium foil layer are formed by a chemical process selected from the group consisting of electroless plating and electroplating.

12. (previously presented): The component assembly of claim 1, wherein said at least one nickel foil layer and said at least one titanium foil layer are formed by a thermal process selected from the group consisting of sputtering, evaporating, and ion beam enhanced deposition.

13. (previously presented): The component assembly of claim 1, wherein said at least one nickel foil layer and said at least one titanium foil layer are formed from metallic particulate.

14-30. (canceled):